

**Supplementary File 5** Examples of sister species demonstrating bioactivities of ND therapeutic potential

Species	Ethnological use	Bioactivity of species/of sister species
<i>Baccaurea lanceolata</i>	Anti-inflammatory	No records found <i>Baccaurea courtallensis</i> anti-inflammatory [Muhammed Jasim et al., 2019] [a/vivo rat]
<i>Barleria homiotrichia</i>	Anti-virall [HSV, mumps]	No records found <i>Barleria lupulina</i> anti-viral [HSV] [Yooook et al., 1999] [vit]
<i>Berberis goudotii</i>	Anti-inflammatory	No records found <i>Berberis vulgaris</i> anti-inflammatory [Ivanovska and Philipov, 1996] [a/vivo mouse]
<i>Callicarpa tormentosa</i>	Anti-inflammatory	No records found <i>Callicarpa japonica</i> anti-inflammatory [Shin NR et al., 2015] [a/vivo mouse, a/mouse cell line]
<i>Coptis teeta</i>	Anti-venom; anti-microbial	No records found <i>Coptis chinensis</i> anti-amyloid, cognitive improvement [Durairajan et al., 2012] [a/vivo AD mouse]; reverses TDP-43 aggregation [Chang CF et al., 2016] [a/cell line mouse neuron]; reduced mutant huntingtin accumulation [Jiang W et al., 2015] [a/vivo HD mouse]; anti-PD: reduced neuronal damage, reduced apoptosis, improved motor functions and memory [Kim M et al., 2014] [a/vivo PD mouse]; autophagy regulation [Fan X et al., 2015] [a/cell line mouse], [Huang M et al., 2017] [a/vivo AD mouse]; anti-neuroinflammatory [Lu et al., 2010] [a/cell line mouse microglia]
<i>Fragaria nubicola</i>	Anti-inflammatory; memory improvement	No records found <i>Fragaria x ananassa</i> inhibits A $\beta$ aggregation and tau phosphorylation, neuroprotective [Ma et al., 2018] [a/cell line mouse microglia, vit]; cognitive improvement [Joseph et al., 1999] [a/vivo rat]
<i>Myrica esculenta</i>	Anti-microbial	No records found <i>Myrica cerifera</i> enhanced tau clearance [Jones JR et al., 2011] [h/cell line neural]
<i>Ocotea usambarensis</i>	Anti-inflammatory	No records found <i>Ocotea duckei</i> anti-PAF [Ribeiro R et al., 1996] [a/vivo rat]
<i>Phragmanthera usuensis</i>	Anti-paralytic	No records found <i>Phragmanthera austroarabica</i> neuroprotective [Aldawsari et al., 2017] [a/vivo mouse]
<i>Salvia ayavazensis</i>	Anti-inflammatory	No records found <i>Salvia miltiorrhiza</i> anti-amyloidogenic [Wang Q et al., 2013] [h/cell line neuron]; anti-apoptotic [Zhang et al., 2009] [a/cell line rat neuron]; anti-inflammatory, memory improvement [Maione et al., 2018] [a/vivo AD mouse]; immunomodulation [Kang et al., 2000] [a/cell line mouse]; MS T cell downregulation, improved symptoms [Yan et al., 2016] [a/vivo MS rat]
<i>Stephania abyssinica</i>	Anti-microbial; wound healing	No records found <i>Stephania tetrandra</i> [tetrandrine] prion protein inhibition [Kocisko et al., 2005] [a/cell line mouse]; reduced ocular hypertension [Huang P et al., 2011] [a/vivo rat]; anti-platelet aggregation [Kim HS et al., 1999] [h/cell platelet]; reduced microglial activation, anti-inflammatory [Xue et al., 2008] [a/cell line rat microglia]; increased BDNF [Gao S et al., 2013] [a/vivo rat]; <i>Stephania cephalantha</i> anti-viral: HIV [Ma CM et al., 2002] [h/cell line]
<i>Uvaria brevistipitata</i>	Anti-viral [HIV]	No records found <i>Uvaria angolensis</i> Anti-viral: HIV [Ngoutane Mfopa et al., 2018] [vit]
<i>Viola arguta</i>	Anti-inflammatory; anti-microbial [influenza]	No records found <i>Viola yedoensis</i> anti-influenza [Liu MZ et al., 2014] [vit]; <i>Viola betonicifolia</i> anti-inflammatory [Muhammad et al., 2012] [a/vivo mouse]

Abbreviations: Type of study: a/vivo, animal in vivo; h/cell line, human cell line; h/c, human clinical; vit, *in vitro*

References can be found in Supplementary File 7: References